

Natality

An Overview: 2005

Total Resident Live Births	11,466
Crude Birth Rate per 1,000 Population	15.2
Median Live Birth Weight (Grams)	3,374
Low Weight Births (Less than 2,500 grams)	758
Low Birth Weight Rate per 1,000 Live Births	66.1
Mean Age of Mother	27
No Prenatal Care (Percentage of Total Single Live Births)	0.6

For the first time in 2003, the Department of Health, Office of Data, Statistics, and Vital Records utilized multiple races on the birth certificate. Please see page 221 in the Technical Notes for a more in-depth explanation. There were 11,466 births to South Dakota residents in 2005, for a crude birth rate of 15.2 per 1,000 South Dakota resident populations.

Resident births increased by 1.1 percent from 2004 when there were 11,339 births. In 2005, 51.6 percent of the babies born were male and 48.4 percent were female. Racially, white births were 52.0 percent male and 48.0 percent female; American Indian births were 50.5 percent male, 49.5 percent female.

The low birth weight rate per 1,000 live births decreased from 69.4 in 2004 to 66.1 in 2005. This was a 4.8 percent decrease from the 2004 low birth weight rate.

Table 4, below and Figure 2, page 12, display the live births and crude birth rates for the United States and South Dakota for the past 20 years. As the illustrations indicate, South Dakota's birth rate remains above the national average.

Table 4
Resident Live Births and Crude Birth Rates, South Dakota and United States, 1986-2005

Year	United States		South Dakota	
	Number	Crude Rate	Number	Crude Rate
2005	*4,143,000	*14.0	11,466	15.2
2004	4,112,052	14.0	11,339	15.0
2003	4,089,950	14.1	11,022	14.6
2002	4,021,726	13.9	10,698	14.2
2001	4,025,933	14.5	10,475	13.8
2000	4,058,814	14.7	10,346	13.7
1999	3,959,417	14.5	10,516	15.1
1998	3,941,553	14.6	10,281	14.8
1997	3,880,894	14.5	10,168	14.6
1996	3,891,494	14.7	10,469	15.0
1995	3,899,589	14.8	10,470	15.0
1994	3,952,767	15.2	10,504	15.1
1993	4,000,240	15.5	10,718	15.4
1992	4,065,014	15.9	11,007	15.8
1991	4,110,907	16.3	10,930	15.7
1990	4,158,212	16.7	10,987	15.8
1989	4,040,958	16.4	11,072	15.5
1988	3,909,510	16.0	11,185	15.7
1987	3,809,394	15.7	11,482	16.2
1986	3,756,547	15.6	11,623	16.4

Note: *U.S. data are provisional.

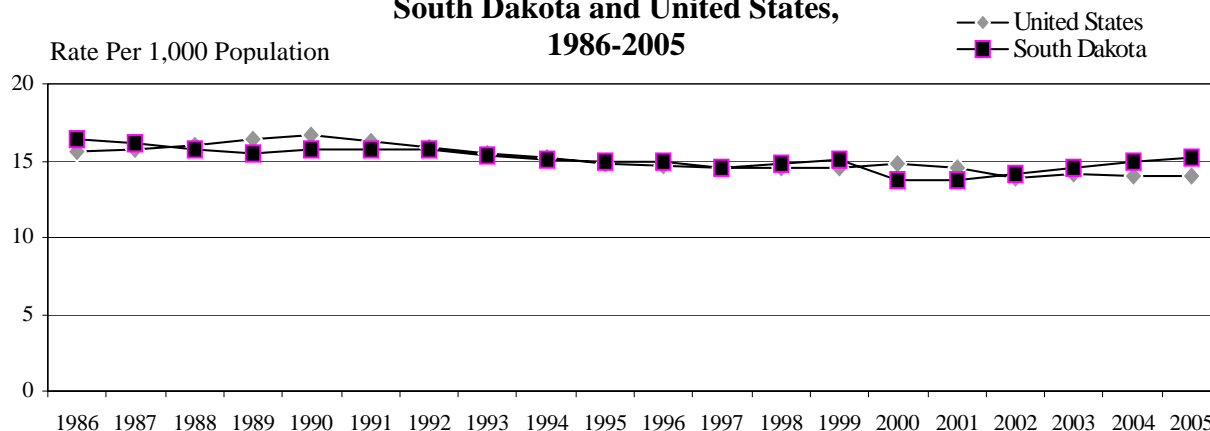
The decrease in the South Dakota crude rate in 2000 is at least partially due to the change in population from the 2000 census.

Crude birth rates are per 1,000 population.

Source: National Center for Health Statistics

South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Figure 2
Resident Live Birth Rates,
South Dakota and United States,
1986-2005



Note: 2005 U.S. data are provisional.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Births by Race

Table 5 shows the number and percent of resident births by mother's race since 1986. In 2005, the percentage of births to whites decreased by 0.5 percent, while the percentage of births for American Indians increased by 1.6 percent. The percentage of births to other races remained the same.

In 2003, the South Dakota Department of Health (SDDOH) began utilizing the multiple race data on the birth certificate for the mother and father. Therefore, in order to assign a single race to each mother, the SDDOH allocated multiple races into one single race. The methods used for this allocation can be found on page 221. Consequently, it should be noted that any changes illustrated in Table 5 beginning in 2003 in the racial breakdown of mothers should be interpreted with this reporting change in mind.

Table 6, on the next page, shows a more detailed racial breakdown since these changes were implemented in 2003. These specific racial groups were not all possible prior to 2003.

Table 5
South Dakota Resident Live Births by Mother's Race,
1986-2005

Births		White		American Indian		Other	
Year	Number	Number	Percent	Number	Percent	Number	Percent
2005	11,466	8,974	78.3	2,155	18.8	322	2.8
2004	11,339	8,924	78.7	2,100	18.5	313	2.8
2003	11,022	8,642	78.4	2,091	19.0	289	2.6
2002	10,698	8,648	80.8	1,805	16.9	244	2.3
2001	10,475	8,469	80.8	1,770	17.0	233	2.2
2000	10,346	8,416	81.3	1,682	16.3	245	2.4
1999	10,516	8,658	82.3	1,665	15.8	192	1.8
1998	10,281	8,383	81.5	1,716	16.7	181	1.8
1997	10,168	8,412	82.7	1,538	15.1	218	2.1
1996	10,469	8,655	82.7	1,632	15.6	181	1.7
1995	10,470	8,684	82.9	1,564	14.9	221	2.1
1994	10,504	8,771	83.5	1,533	14.6	197	1.9
1993	10,718	8,822	82.3	1,720	16.0	173	1.6
1992	11,007	9,090	82.6	1,739	15.8	159	1.4
1991	10,930	9,068	83.0	1,665	15.2	132	1.2
1990	10,987	9,165	83.4	1,668	15.2	154	1.4
1989	11,072	9,163	82.8	1,753	15.8	156	1.4
1988	11,185	9,343	83.5	1,696	15.2	146	1.3
1987	11,482	9,642	84.0	1,695	14.7	145	1.3
1986	11,623	9,807	84.4	1,678	14.4	138	1.2

Note: Failure of the races to add to the total is due to unknown races contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

In 2005, 78.3 percent of South Dakota resident births were white, 18.8 percent were American Indians, 1.3 percent were black, and 1.0 percent were Asian.

Table 6
South Dakota Resident Live Births by Mother's Race, 2003-2005

Births		White		American Indian		Black		Asian		Other	
Year	Number	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2005	11,466	8,974	78.3	2,155	18.8	153	1.3	116	1.0	53	0.5
2004	11,339	8,924	78.7	2,100	18.5	154	1.4	142	1.3	17	0.1
2003	11,022	8,642	78.4	2,091	19.0	131	1.2	134	1.2	24	0.2

Note: Failure of the races to add to the total is due to unknown races contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Births by Ethnicity

Table 7, displays the number and percent of resident births by ethnicity of mother since 1996. In 2005, the percentage of births to non-Hispanic mothers was 96.5 percent, while the percentage of births to Hispanic mothers was 3.4 percent. Overall, the percent of Hispanic births has been increasing since 1996 with a percent increase of 142.9 percent, while the percent of non-Hispanic births has been decreasing since 1996 with a percent decrease of 2 percent.

Table 8, below, displays resident births by mother's ethnicity and race.

Table 7
South Dakota Resident Live Births by Ethnicity of Mother, 1996-2005

Births		Non-Hispanic		Hispanic	
Year	Number	Number	Percent	Number	Percent
2005	11,466	11,070	96.5	392	3.4
2004	11,339	10,936	96.4	395	3.5
2003	11,022	10,682	96.9	340	3.1
2002	10,698	10,380	97.0	317	3.0
2001	10,475	10,211	97.5	257	2.5
2000	10,346	10,109	97.7	225	2.2
1999	10,516	10,331	98.2	178	1.7
1998	10,281	10,126	98.5	154	1.5
1997	10,168	10,018	98.5	141	1.4
1996	10,469	10,311	98.5	146	1.4

Note: Failure of ethnicity of mother to add to the total is due to unknown ethnicity contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 8
South Dakota Resident Live Births by Mother's Ethnicity and Race, 2005

Births		Non-Hispanic		Hispanic	
Race	Number	Number	Percent	Number	Percent
Total	11,466	11,070	96.5	392	3.4
White	8,974	8,686	96.8	288	3.2
American Indian	2,155	2,079	96.5	76	3.5
Black	153	151	98.7	2	1.3
Asian	116	111	95.7	5	4.3
Other	53	38	71.7	15	28.3

Note: Failure of ethnicity to add to the total is due to unknown ethnicity contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

South Dakota Resident and Occurrence Births

Table 9 shows that of the 11,466 South Dakota resident births in 2005, 8,974 were to white women while 2,155 were to American Indian women. Of the 11,466 births, 418 occurred out of state. The four states where the majority of these births occurred are bordering states. The percent of births occurring in each are as follows:

- Iowa-1.1 Percent
- Minnesota-0.5 percent
- Nebraska-0.6 percent
- North Dakota-1.3 percent

In comparison, Table 10 shows 910 of the 11,958 births occurring in South Dakota during 2005 were to non-residents of South Dakota. Of the 11,958 live births occurring in South Dakota 9,533 were to white women while 2,083 were to American Indian women.

Attendant During Birth

South Dakota physicians and midwives attended 92.8 percent and 6.5 percent of the births respectively. In 2005, home births represented 0.3 percent of South Dakota resident live births. In 2004, home births represented 0.4 percent of South Dakota resident live births.

Birth Weight

Low birth weight (LBW) is defined as live births with a weight less than 2,500 grams or five pounds eight ounces. The data in Table 11, page 15, indicates that in 2005 the majority of births fell into the 3,000 to 3,499 gram or 3,500 to 3,999 gram category. This is consistent with data from the past several years.

Table 9
South Dakota Resident Live Births by State in Which Birth Occurred and Mother's Race, 2005

		RACE OF MOTHER		
		Total	White	American Indian Other
Total	11,466	8,974	2,155	322
South Dakota	11,048	8,710	2,011	316
North Dakota	146	58	87	0
Iowa	125	120	1	3
Nebraska	69	25	42	2
Minnesota	54	48	6	0
All Other	24	13	8	1

Note: Failure of the races to add to the total is due to unknown races contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 10
Live Births Occurring in South Dakota by Mother's Resident State and Race, 2005

		RACE OF MOTHER		
		Total	White	American Indian Other
Total	11,958	9,533	2,083	330
South Dakota	11,048	8,710	2,011	316
Minnesota	273	256	11	6
Iowa	272	268	1	3
Nebraska	204	158	45	1
Wyoming	76	72	3	1
North Dakota	63	55	8	0
Montana	3	3	0	0
All Other	19	11	4	3

Note: Failure of the races to add to the total is due to unknown races contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records.

In 2005, there were 758 low weight births or 6.6 percent of all South Dakota resident live births. When looking at race, 6.5 percent of white babies and 6.5 percent of American Indian babies were low birth weight in 2005. In comparison, in 2004 white and American Indian low birth weight births were 6.7 and 8.0 percent, respectively.

Table 11
South Dakota Resident Live Births by Birth Weight and Mother's Race, 2005

Birth Weight (in Grams)	Total		Race of Mother					
			White		American Indian		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-499	20	0.2	16	0.2	4	0.2	0	0.0
500-999	48	0.4	33	0.4	12	0.6	3	0.9
1,000-1,499	63	0.5	43	0.5	17	0.8	3	0.9
1,500-1,999	147	1.3	117	1.3	24	1.1	6	1.9
2,000-2,499	480	4.2	377	4.2	84	3.9	18	5.6
2,500-2,999	1,814	15.8	1,433	16.0	315	14.6	64	19.9
3,000-3,499	4,404	38.4	3,476	38.7	792	36.8	130	40.4
3,500-3,999	3,429	29.9	2,687	29.9	663	30.8	76	23.6
4,000-4,499	910	7.9	702	7.8	191	8.9	16	5.0
4,500-4,999	138	1.2	85	0.9	48	2.2	5	1.6
5,000 & Over	10	0.1	5	0.1	4	0.2	1	0.3
Total	11,466	100.0	8,974	100.0	2,155	100.0	322	100.0
Median birth weight in grams	3,374		3,374		3,402		3,232	
Mean birth weight in grams	3,333		3,329		3,365		3,213	
Modal birth weight in grams	3,374		3,374		3,629		3,175	

Note: Failure of the races and birth weights to add to the total is due to unknown races and birth weights contained in the total birth column and row.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 12, below, shows a more detailed racial breakdown by birth weight from 2003 to 2005. For all races, the majority of births fell into the 3,000 to 3,499 grams or 3,500 to 3,999 grams, except blacks whose second highest birth weight group was 2,500 to 2,999 grams.

From 2003 to 2005 there were 2,279 low

weight births or 6.7 percent of all South Dakota resident live births. Asian mothers had the highest percent of low birth weight babies with 8.9 percent, followed by American Indians with 7.2 percent low birth weight and blacks with 7.1 percent low birth weight. Whites had the lowest percent of low birth weight babies from 2003 to 2005 with 6.6 percent.

Table 12
South Dakota Resident Live Births by Birth Weight and Mother's Race, 2003-2005

Birth Weight (in Grams)	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-499	45	0.1	32	0.1	12	0.2	0	0.0	0	0.0	1	1.0
500-999	149	0.4	104	0.4	36	0.6	5	1.1	4	1.0	0	0.0
1,000-1,499	198	0.6	141	0.5	54	0.9	2	0.5	1	0.3	0	0.0
1,500-1,999	433	1.3	340	1.3	79	1.2	4	0.9	5	1.3	5	5.4
2,000-2,499	1,454	4.3	1,125	4.2	275	4.3	20	4.6	25	6.4	8	8.6
2,500-2,999	5,320	15.7	4,176	15.7	948	14.9	100	22.8	81	20.7	13	14.0
3,000-3,499	12,727	37.6	10,052	37.9	2,276	35.9	187	42.7	166	42.3	38	40.9
3,500-3,999	10,164	30.0	8,068	30.4	1,890	29.8	95	21.7	83	21.2	25	26.9
4,000-4,499	2,856	8.4	2,193	8.3	619	9.8	19	4.3	23	5.9	1	1.1
4,500-4,999	433	1.3	287	1.1	136	2.1	5	1.1	4	1.0	1	1.1
5,000 & Over	38	0.1	20	0.1	16	0.3	1	0.2	0	0.0	1	1.1
Total	33,827	100.0	26,540	100.0	6,346	100.0	438	100.0	392	100.0	93	100.0
Median birth weight in grams	3,374		3,374		3,402		3,232		3,232		3,260	
Mean birth weight in grams	3,339		3,338		3,361		3,216		3,207		3,175	
Modal birth weight in grams	3,289		3,289		3,374		3,175		3,629		3,119	

Note: Failure of the races and birth weights to add to the total is due to unknown races and birth weights contained in the total birth column and row.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 13, below, shows resident births by birth weight and mother's ethnicity. The majority of births for both non-Hispanic and Hispanic fell into the 3,000 to 3,499 grams or 3,500 to 3,999 grams category.

When looking at ethnicity, 6.7 percent of non-Hispanic babies and 4.1 percent of Hispanic babies were low birth weight in 2005.

Table 13
South Dakota Resident Live Births by Birth Weight and Mother's Ethnicity, 2005

Birth Weight (in Grams)	Total		Ethnicity of Mother			
			Non-Hispanic		Hispanic	
	Number	Percent	Number	Percent	Number	Percent
0-1,999	278	2.4	275	2.5	3	0.8
2,000-2,499	480	4.2	467	4.2	13	3.3
2,500-2,999	1,814	15.8	1,738	15.7	76	19.4
3,000-3,499	4,404	38.4	4,222	38.1	180	45.9
3,500-3,999	3,429	29.9	3,326	30.0	103	26.3
4,000-4,499	910	7.9	896	8.1	13	3.3
4,500-4,999	138	1.2	135	1.2	3	0.8
5,000 & Over	10	0.1	9	0.1	1	0.3
Total	11,466	100.0	11,070	100.0	392	100.0
Median birth weight in grams	3,374		3,374		3,345	
Mean birth weight in grams	3,333		3,334		3,303	
Mode birth weight in grams	3,374		3,374		3,430	

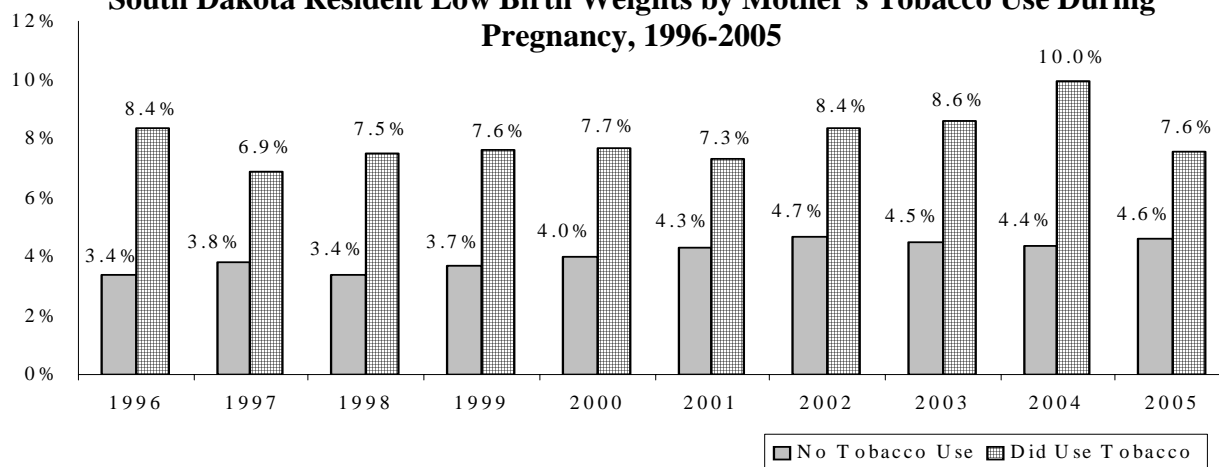
Note: Failure of the ethnicity and birth weights to add to the total is due to unknown ethnicity and birth weights contained in the total birth column and row.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Use of tobacco during pregnancy is associated with miscarriages, low birth weight, and infant mortality¹. Tobacco use during pregnancy was reported on 18 percent of the 2005 South Dakota resident

birth certificate. Figure 3, below, shows 7.6 percent of mothers who used tobacco during pregnancy had a baby under 2,500 grams. Of those reporting no maternal tobacco use in 2005, 4.6 percent had a low birth weight baby.

Figure 3
South Dakota Resident Low Birth Weights by Mother's Tobacco Use During Pregnancy, 1996-2005



Note: Multiple births are excluded.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

In 2005, 68.9 percent of low birth weight infants in South Dakota were born preterm. Preterm birth is among the leading causes of infant death¹.

Table 14, on the next page, displays preterm and full term low birth weight births to South Dakota residents by mother's age.

Table 14
South Dakota Resident Preterm and Full Term Births Less Than 2,500 Grams by
Mother's Age, 2005

Mother's Age	Weeks of Gestation							
	Total		Less than 32 Weeks		32 to 36 Weeks		37 and Above	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
< 18 Years	28	100.0	9	32.1	10	35.7	9	32.1
18-19 Years	46	100.0	8	17.4	22	47.8	15	32.6
20-24 Years	219	100.0	37	16.9	106	48.4	75	34.2
25-29 Years	220	100.0	30	13.6	121	55.0	68	30.9
30-34 Years	151	100.0	26	17.2	81	53.6	43	28.5
35 + Years	94	100.0	23	24.5	49	52.1	21	22.3
Total	758	100.0	133	17.5	389	51.3	231	30.5

Note: Failure to add up to 758 because of 5 unknown gestations.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 15, below, displays preterm and full term low birth weight births to South Dakota residents by mother's race. From 2003 to 2005, 68.8 percent of low birth weight infants in South Dakota were born preterm.

When looking at race, 69.5 percent of

American Indian low birth weight infants were born preterm from 2003 to 2005. Followed by 68.8 percent of white low birth weight infants, 68.6 percent of Asian low birth weight infants, and 61.3 percent of black low birth weight infants were born preterm from 2003 to 2005.

Table 15
South Dakota Resident Preterm and Full Term Births Less Than 2,500 Grams by
Mother's Race, 2003-2005

Mother's Race	Weeks of Gestation							
	Total		Less than 32 Weeks		32 to 36 Weeks		37 and Above	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
White	1,742	100.0	311	17.9	887	50.9	537	30.8
American Indian	456	100.0	102	22.4	215	47.1	138	30.3
Black	31	100.0	7	22.6	12	38.7	12	38.7
Asian	35	100.0	5	14.3	19	54.3	11	31.4
Other	14	100.0	1	7.1	10	71.4	3	21.4
Total	2,279	100.0	426	18.7	1,143	50.2	702	30.8

Note: Failure to add up to 2,279 because of 1 unknown gestation.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 16, on the next page, compares low birth weight to normal birth weight babies by selected behaviors of the mother. All babies compared in Table 16 are at least 37 weeks of gestation and no multiple births are included. Of the babies born at 37 weeks gestation and above who weighed less than 2,500 grams in 2005, 32.8 percent were born to mothers who smoked during their pregnancy. In comparison, 17.5 percent of normal birth weight babies were born to mothers who smoked in 2005.

Of the babies born at 37 weeks of gestation and above who weighed less than 2,500 grams in 2005, 18.9 percent were born to mothers who had low weight gain during their pregnancy. In comparison in 2005,

13.6 percent of normal birth weight babies were born to mothers who had low weight gain during their pregnancy.

Of the babies born at 37 weeks gestation and above who weighed less than 2,500 grams in 2005, 79.0 percent were born to mothers who sought prenatal care in the first trimester. Similarly, 79.3 percent of normal birth weight babies were born to mothers who sought prenatal care in the first trimester in 2005.

When looking at the selected behaviors of mothers and if their behavior affected whether they had a baby who weighed above or below 2,500 grams for the last 10 years, the results are similar to the findings in 2005.

Table 16
Selected Behaviors of the Mother by Infant's Birth Weight, 2005 and
1996-2005

Behaviors	2005		1996-2005	
	Birth Weight (Grams)		Birth Weight (Grams)	
	<2500	2500+	<2500	2500+
Smokers	32.8%	17.5%	40.2%	19.3%
Low Weight Gain of Mother	18.9%	13.6%	21.5%	12.6%
First Trimester Prenatal Care	79.0%	79.3%	77.0%	80.0%

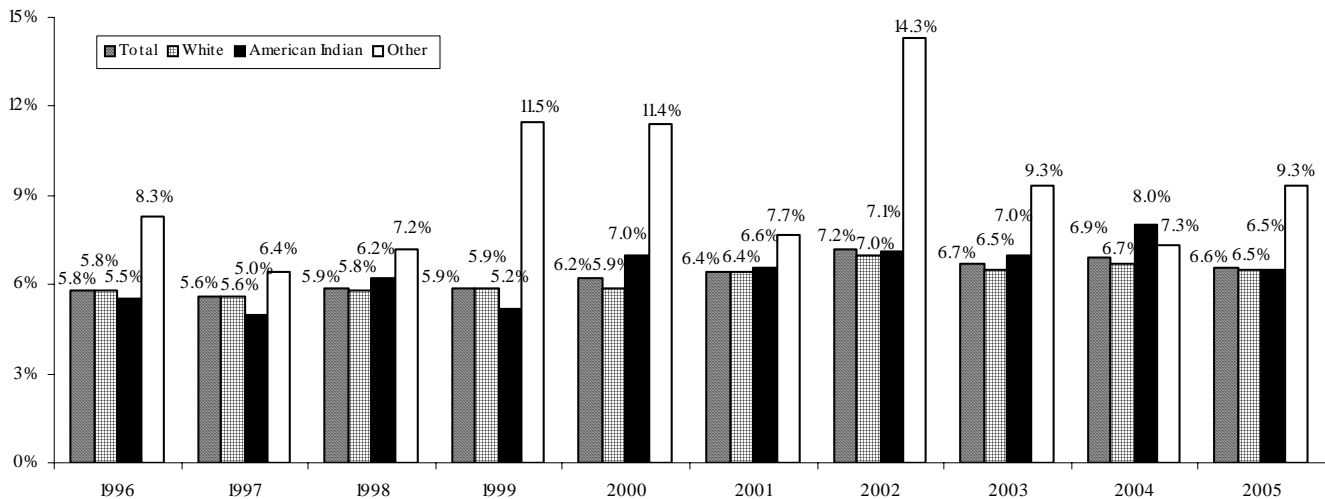
Note: Only infants who were at least 37 weeks gestation were included in this table.
Only mothers who gained less than 16 lbs are included in the low weight gain data.
Multiple births are excluded.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Figure 4, below, compares the low birth weight babies by race of mother from 1996 to 2005. In 2005, white women accounted for 586 or 6.5 percent of low birth weight babies. American Indian women accounted for 141 or 6.5 percent of low birth weight

babies. In 2005, there was a 3.0 percent decrease in white low birth weight babies while among American Indians there was a 18.8 percent decrease in low birth weight babies.

Figure 4
South Dakota Resident Low Birth Weight Births by Race of Mother, 1996-2005



Note: Failure of the races to add to the total is due to unknown races contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Mother's Age and Race

Table 17, on the next page, illustrates that women aged 25 to 29 accounted for the largest percentage of South Dakota resident births in 2005, at 31.4 percent. Women less than 20 years of age comprised 9.6 percent of the total resident births. White women less than 20 years of age accounted for 6.7 percent of the total white births. American Indian women of the same age constituted

21.9 percent of the total American Indian births. Black women of the same age accounted for 14.4 percent of the total black births. The median ages for white, American Indian, black, and Asian mothers were 27, 23, 26, 29 years of age, respectively. The modal ages were 25, 20, 23, 28 years of age, respectively.

Table 17
South Dakota Resident Live Births by Mother's Age and Race, 2005

Age of Mother	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than 18	346	3.0	162	1.8	179	8.3	4	2.6	0	0.0	1	1.9
18-19 Years	757	6.6	437	4.9	292	13.5	18	11.8	4	3.4	6	11.3
20-24 Years	3,232	28.2	2,279	25.4	865	40.1	46	30.1	22	19.0	13	24.5
25-29 Years	3,603	31.4	3,028	33.7	479	22.2	41	26.8	36	31.0	16	30.2
30-34 Years	2,314	20.2	2,011	22.4	223	10.3	35	22.9	29	25.0	13	24.5
35-39 Years	997	8.7	868	9.7	94	4.4	7	4.6	22	19.0	4	7.5
40 & over	217	1.9	189	2.1	23	1.1	2	1.3	3	2.6	0	0.0
Total	11,466	100.0	8,974	100.0	2,155	100.0	153	100.0	116	100.0	53	100.0

Note: Failure of the races to add to the total is due to unknown races contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 18, below, displays resident births by mothers age and ethnicity. Non-Hispanic women less than 20 years of age accounted for 9.4 percent of total non-Hispanic births, while Hispanic women less than 20 accounted for 15 percent of total Hispanic births.

Non-Hispanic women aged 25 to 29 accounted for the largest percentage of total non-Hispanic births at 31.7 percent, while Hispanic women aged 20 to 24 accounted for the largest percentage of total Hispanic births at 37.5 percent.

Table 18
South Dakota Resident Live Births by
Mother's Age and Ethnicity, 2005

Age of Mother	Total		Ethnicity of Mother			
			Non-Hispanic		Hispanic	
	Number	Percent	Number	Percent	Number	Percent
Less than 18	346	3.0	324	2.9	22	5.6
18-19 Years	757	6.6	720	6.5	37	9.4
20-24 Years	3,232	28.2	3,085	27.9	147	37.5
25-29 Years	3,603	31.4	3,507	31.7	95	24.2
30-34 Years	2,314	20.2	2,258	20.4	55	14.0
35-39 Years	997	8.7	964	8.7	31	7.9
40 & over	217	1.9	212	1.9	5	1.3
Total	11,466	100.0	11,070	100.0	392	100.0

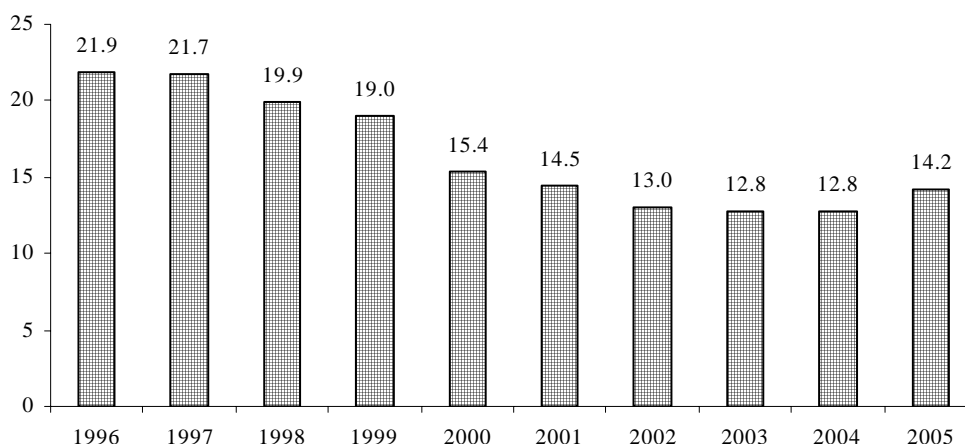
Note: Failure of the ethnicity to add to the total is due to unknown ethnicity contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Figure 5, on the next page, illustrates South Dakota resident teen births (17 years old and younger) as a rate from 1996 through 2005. In 2005, the teen birth rate was 14.2. This shows a 10.9 percent increase in the teen birth rate from 2004 to 2005.

Since 1996, there had been a decline in the number of teen births, until its increase in 2005. However, from 1996 to 2005 there was a 35.2 percent decrease in the teen birth rate.

Figure 5
South Dakota Resident Live Teen Birth Rates, 1996-2005



Note: Rates are per 1,000 female population ages 14-17.
 Rates from 1996-1999 are based on the 1990 census. Rates from 2000-2005 are based on the 2000 census.
 For purposes of calculating birth rates, multiple births (twins, triplets, etc.) are counted only as a single birth.
 Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Prenatal Care

Table 19, below, shows the number and percentage of South Dakota resident single live births and when the mothers started prenatal care in 2005. Almost 80 percent of mothers initiated care in the first trimester 84.2 percent of white mothers, 60.3 percent of American Indian mothers, 56.8 percent of

black mothers, and 78.9 percent of Asian mothers. Less than one percent did not obtain prenatal care at all - 0.3 percent of white mothers, 1.8 percent of American Indian mothers, and less than one percent of black and Asian mothers.

Table 19
South Dakota Resident Live Births by Trimester Prenatal Care Began
and Mother's Race, 2005

Trimester Prenatal Care Began	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
First	8,950	79.1	7,452	84.2	1,286	60.3	84	56.8	90	78.9	27	52.9
Second	1,913	16.9	1,188	13.4	636	29.8	52	35.1	17	14.9	18	35.3
Third	344	3.0	162	1.8	164	7.7	10	6.8	4	3.5	4	7.8
None	70	0.6	27	0.3	38	1.8	1	0.7	1	0.9	2	3.9
Unknown	31	0.3	19	0.2	8	0.4	1	0.7	2	1.8	0	0.0
Total	11,308	100.0	8,848	100.0	2,132	100.0	148	100.0	114	100.0	51	100.0

Note: Failure of the races to add to the total is due to the unknown races contained in the total birth column.
 For purposes of calculating prenatal care multiple births (twins, triplets, etc) are counted only as a single birth.
 Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 20, page 21, displays when mothers began prenatal care by the ethnicity of the mother. The majority of non-Hispanic mothers, 79.8 percent, and Hispanic

mothers, 62.2 percent, began prenatal care in their first trimester. Less than one percent of non-Hispanic and Hispanic mothers did not obtain prenatal care at all.

Table 20
South Dakota Resident Live Births by Trimester Prenatal
Care Began and Mother's Ethnicity, 2005

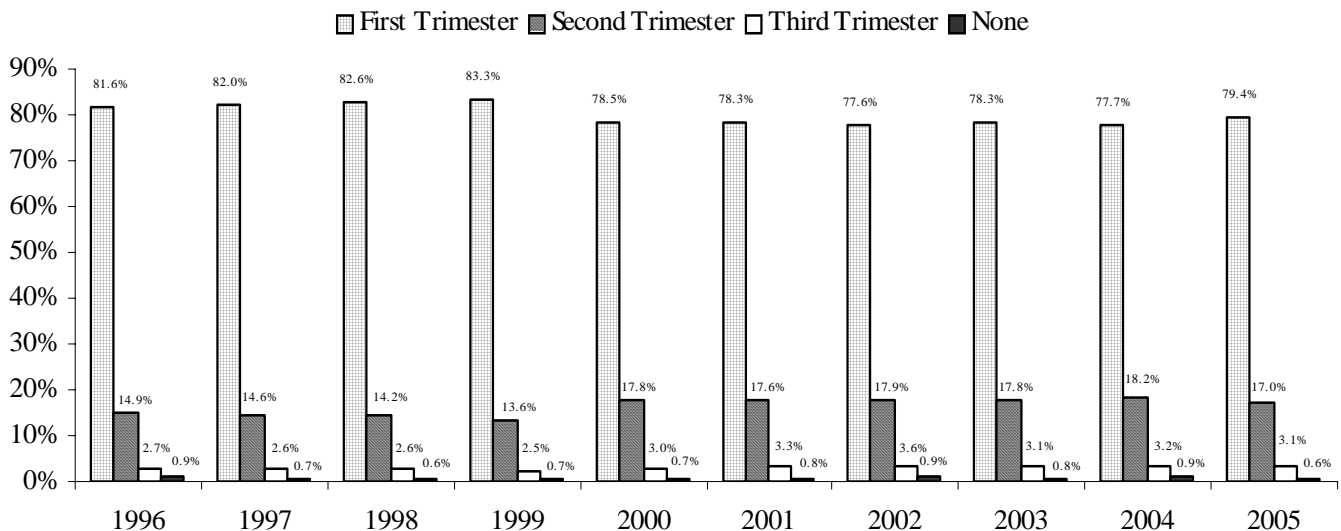
Trimester Prenatal Care Began	Total		Ethnicity of Mother			
			Non-Hispanic		Hispanic	
	Number	Percent	Number	Percent	Number	Percent
First	8,950	79.1	8,705	79.8	242	62.2
Second	1,913	16.9	1,790	16.4	123	31.6
Third	344	3.0	323	3.0	21	5.4
None	70	0.6	66	0.6	3	0.8
Unknown	31	0.3	31	0.3	0	0.0
Total	11,308	100.0	10,915	100.0	389	100.0

Note: Failure of the races to add to the total is due to the unknown races contained in the total birth column.
For purposes of calculating prenatal care multiple births (twins, triplets, etc) are counted only as a single birth.
Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Figure 6, below, shows the 10 year trend for when South Dakota resident mothers started prenatal care. The number of women who began prenatal care in the first trimester has been changing over the last 10 years, with the highest number of women seeking care in their first trimester in 1999 with 83.3

percent and the lowest number of women seeking care in their first trimester in 2002 with 77.6 percent. In 2005, 79.4 percent of the women sought prenatal care in the first trimester, while in 2004, 77.7 percent of the women sought care in the first trimester. This is a 2.2 percent increase.

Figure 6
South Dakota Resident Live Births by Trimester
Prenatal Care Began, 1996-2005



Note: For purposes of calculating prenatal care, multiple births (twins, triplets, etc) are counted only as a single birth.
Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 21, next page, indicates that 11.9 percent of the pregnancies resulting in low birth weight babies (less than 2,500 grams) had fewer than five prenatal care visits; 32.1

percent of American Indian and 6.7 percent of the white low birth weight babies were born to mothers with fewer than five prenatal care visits.

Table 21
South Dakota Resident Live Births by Number of Prenatal Visits
and Mother's Race for Low Birth Weight Babies, 2005

Number of Prenatal Care Visits	Total		Race of Mother					
			White		American Indian		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
None	10	1.5	4	0.8	5	3.8	1	4.0
1-4	69	10.4	30	5.9	37	28.2	2	8.0
5-9	270	40.8	203	40.2	57	43.5	10	40.0
10-14	252	38.1	215	42.6	26	19.8	11	44.0
15-19	44	6.6	40	7.9	2	1.5	1	4.0
20+	7	1.1	6	1.2	1	0.8	0	0.0
Not Stated	10	1.5	7	1.4	3	2.3	0	0.0
Total	662	100.0	505	100.0	131	100.0	25	100.0

Note: For purposes of calculating prenatal care, multiple births (twins, triplets, etc) are counted only as a single birth.
Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Apgar score

The Apgar score was developed by the late Virginia Apgar, M.D., as a standardized mechanism to assess the physical condition of newborns. The score considers five easily identifiable characteristics – heart rate, respiratory effort, muscle tone, reflex, and color. Each characteristic is assessed and assigned a value from zero to two, with two being optimum. If the total score of these five components is seven or greater, a newborn is considered to be in good to excellent physical condition. As a method

to predict a baby's chances of survival, the Apgar score is assessed at one and five minutes after delivery with the five-minute score regarded as the better measure to make predictions¹.

In 2005, 1.4 percent of South Dakota resident infants received five minute Apgar scores less than seven. Considering race, 1.4 percent of white infants and 1.3 percent of American Indian infants received a five-minute Apgar score less than seven in 2005.

Medical History Factors

Table 22, on the next page, lists the medical history factors that were reported on birth certificates for South Dakota resident mothers from 1996 to 2005. During 2005, these medical history factors were associated with 25.4 percent of pregnancies resulting in live births. These medical factors can increase the morbidity and

mortality risks of both the mother and infant, particularly when they are not adequately treated¹. For example, pregnancy-associated hypertension, the factor most frequently reported on 2005 South Dakota birth certificates, is one of the most frequent causes of maternal death in the United States¹.

Table 22
South Dakota Resident Live Births by
Mother's Medical History Factors for this Pregnancy, 1996-2005

	Total	Year of Birth									
		2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
Total births	105,175	11,308	11,143	10,864	10,521	10,295	10,204	10,365	10,122	10,046	10,307
Hypertension, pregnancy-associated	5,318	607	657	565	555	533	584	578	421	393	425
Diabetes, gestational	2,840	379	336	313	314	288	260	282	236	219	213
Hydramnios/Oligohydramnios	2,529	283	280	266	277	261	244	250	238	222	208
Previous infant 4000+ grams	2,277	286	256	257	214	175	189	212	191	259	238
Previous preterm or small-for-gestational-age infant	1,827	233	204	208	185	141	171	156	159	188	182
Anemia (Hct. <30/Hgb. <10)	1,732	214	221	185	180	164	188	181	141	111	147
Hypertension, chronic	823	109	94	107	99	78	63	82	67	59	65
Uterine bleeding	697	51	49	58	53	55	59	83	93	87	109
Diabetes, pre-existing	625	70	75	68	80	67	63	62	62	45	33
Acute or chronic lung disease	521	70	51	63	70	45	68	60	48	25	21
Genital herpes	507	70	53	52	46	49	64	53	38	50	32
Incompetent cervix	382	35	39	33	45	41	41	47	31	35	35
Eclampsia	315	34	29	13	11	23	29	43	47	46	40
Blood group sensitization	275	34	38	17	24	21	12	40	25	33	31
Cardiac disease	258	24	30	37	27	40	30	30	15	11	14
Renal disease	244	18	15	26	21	31	33	45	19	15	21
Hemoglobinopathy	21	3	5	0	4	2	2	2	2	0	1
Other	8,682	912	522	612	633	950	927	837	1,092	1,025	1,172
None	79,737	8,432	8,597	8,403	8,103	7,756	7,605	7,811	7,641	7,652	7,737

Note: For purposes of reporting medical history factors of the mother, multiple births (twins, triplets, etc.) are counted only as a single birth.

Medical history factors do not equal the total number of resident births due to multiple history factors listed on some birth certificates.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 23, on the next page, lists the medical history factors for South Dakota resident mothers by their ethnicity for 2005. In 2005, non-Hispanic mothers had higher percentage of hypertension, chronic and

pregnancy associated, than Hispanic mothers did. Hispanic mothers had higher percents of anemia (Hct. <30/Hgb. < 10) and diabetes, gestational than non-Hispanic mothers did.

Table 23
South Dakota Resident Live Births by
Mother's Medical History Factors for this Pregnancy and
Ethnicity of Mother, 2005

	Total	Year of Birth			
		Non-Hispanic		Hispanic	
		Number	Percent	Number	Percent
Total births	11,308	10,915	96.6	389	3.4
Hypertension, pregnancy-associated	607	594	5.4	13	3.3
Diabetes, gestational	379	357	3.3	22	5.7
Previous infant 4000+ grams	286	282	2.6	4	1.0
Hydramnios/Oligohydramnios	283	273	2.5	10	2.6
Previous preterm or small-for-gestational-age infant	233	226	2.1	7	1.8
Anemia (Hct. <30/Hgb. <10)	214	201	1.8	13	3.3
Hypertension, chronic	109	109	1.0	0	0.0
Acute or chronic lung disease	70	65	0.6	5	1.3
Diabetes, pre-existing	70	67	0.6	3	0.8
Genital herpes	70	66	0.6	4	1.0
Uterine bleeding	51	49	0.4	2	0.5
Incompetent cervix	35	34	0.3	1	0.3
Eclampsia	34	34	0.3	0	0.0
Blood group sensitization	34	33	0.3	1	0.3
Cardiac disease	24	24	0.2	0	0.0
Renal disease	18	17	0.2	1	0.3
Hemoglobinopathy	3	3	0.0	0	0.0
Other	912	889	8.1	23	5.9
None	8,432	8,127	74.5	301	77.4

Note: For purposes of reporting medical history factors of the mother, multiple births (twins, triplets, etc.) are counted only as a single birth.

Medical history factors do not equal the total number of resident births due to multiple history factors listed on some birth certificates.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 24, on the next page, lists the medical history factors for South Dakota resident mothers from 2003 to 2005. American Indian mothers had the highest percent of medical history factors associated with pregnancies with 27.8 percent. Asian mothers had the second highest percent of

medical history factors associated with pregnancies with 25.6 percent. Next highest was white mothers with 22.7 percent of medical history factors associated with pregnancies. Black mothers had the lowest percent of medical history factors associated with pregnancies with 20.6 percent.

Table 24
South Dakota Resident Live Births by Mother's
Medical History Factors for this Pregnancy by Mother's Race, 2003-2005

	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Total births	33,315	100.0	26,130	100.0	6,260	100.0	433	100.0	383	100.0	92	100.0
Hypertension, pregnancy-associated	1,829	5.5	1,519	5.8	277	4.4	14	3.2	16	4.2	3	3.3
Diabetes, gestational	1,028	3.1	751	2.9	241	3.8	11	2.5	22	5.7	0	0.0
Hydramnios/Oligohydramnios	829	2.5	668	2.6	129	2.1	13	3.0	17	4.4	2	2.2
Previous infant 4000+ grams	799	2.4	570	2.2	221	3.5	5	1.2	3	0.8	0	0.0
Pervious preterm or small-for-gestational-age infant	645	1.9	489	1.9	138	2.2	9	2.1	7	1.8	1	1.1
Anemia (Hct. <30/Hgb. <10)	620	1.9	213	0.8	381	6.1	13	3.0	10	2.6	1	1.1
Hypertension, chronic	310	0.9	234	0.9	71	1.1	2	0.5	3	0.8	0	0.0
Diabetes, pre-existing	213	0.6	139	0.5	71	1.1	2	0.5	1	0.3	0	0.0
Acute or chronic lung disease	184	0.6	133	0.5	44	0.7	4	0.9	2	0.5	1	1.1
Genital herpes	175	0.5	126	0.5	44	0.7	2	0.5	3	0.8	0	0.0
Uterine bleeding	158	0.5	121	0.5	33	0.5	1	0.2	3	0.8	0	0.0
Incompetent cervix	107	0.3	85	0.3	20	0.3	0	0.0	1	0.3	0	0.0
Cardiac disease	91	0.3	65	0.2	24	0.4	0	0.0	2	0.5	0	0.0
Blood group sensitization	89	0.3	74	0.3	15	0.2	0	0.0	0	0.0	0	0.0
Eclampsia	76	0.2	60	0.2	14	0.2	0	0.0	2	0.5	0	0.0
Renal disease	59	0.2	44	0.2	13	0.2	1	0.2	0	0.0	0	0.0
Hemoglobinopathy	8	0.0	6	0.0	2	0.0	0	0.0	0	0.0	0	0.0
Other	2,046	6.1	1,592	6.1	406	6.5	21	4.8	24	6.3	3	3.3
None	25,432	76.3	20,187	77.3	4,522	72.2	344	79.4	285	74.4	83	90.2

Note: For purposes of reporting medical history factors of the mother, multiple births (twins, triplets, etc.) are counted only as a single birth.

Medical history factors do not equal the total number of resident births due to multiple history factors listed on some birth certificates.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Obstetric Procedures

Table 25, on the next page, shows obstetric procedures used for the last 10 years. It lists the two most prevalent obstetric procedures in 2005 as electronic fetal monitoring (EFM) and ultrasound. EFM was reported for 87.2 percent of resident mothers while ultrasound was reported for 63.1 percent of resident mothers in 2005. Racially, EFM usage was

87.6 percent for white mothers and 86.1 percent for American Indian mothers. Likewise, ultrasound usage was reported for 65.6 percent of white mothers and 53.9 percent of American Indian mothers on 2005 birth certificates. Overall, obstetric procedures were reported for 95.0 percent of resident mothers in 2005.

Table 25
South Dakota Resident Live Births by Obstetric Procedures, 1996-2005

	Total	Year of Birth									
		2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
Total Births	105,175	11,308	11,143	10,864	10,521	10,295	10,204	10,365	10,122	10,046	10,307
Electronic fetal monitoring	88,254	9,866	9,631	9,498	9,092	8,814	8,697	8,840	8,459	7,623	7,734
Ultrasound	70,178	7,130	7,304	7,215	6,967	7,055	7,058	6,969	6,851	6,650	6,979
Induction of labor	24,158	3,325	2,885	2,861	2,755	2,534	2,318	2,182	1,827	1,821	1,650
Stimulation of labor	15,276	1,765	1,636	1,582	1,666	1,651	1,450	1,500	1,386	1,280	1,360
Tocolysis	2,159	221	228	173	224	219	211	246	205	211	221
Amniocentesis	1,977	236	176	210	179	189	211	243	173	158	202
Other	959	124	23	25	23	10	32	113	164	200	245
None	5,705	560	507	447	440	524	710	610	595	629	683

Note: For purposes of reporting obstetric procedures of the mother, multiple births (twins, triplets, etc.) are counted only as a single birth.

Obstetric procedures do not equal the total number of resident births due to multiple procedures listed on some birth certificates.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 26, below, shows obstetric procedures by race from 2003-2005. EFM was the top obstetric procedure used for all races. Ultrasound was the next highest procedure used with white and Asian resident mothers

having percents of 67.2 and 65.3 respectively, while American Indian and black resident mothers had 56.7 and 51.3 percent respectively.

Table 26
South Dakota Resident Live Births by Obstetric Procedures by Mother's Race, 2003-2005

	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Total Births	33,315	100.0	26,130	100.0	6,260	100.0	433	100.0	383	100.0	92	100.0
Electronic fetal monitoring	28,995	87.0	22,613	86.5	5,607	89.6	359	82.9	334	87.2	71	77.2
Ultrasound	21,649	65.0	17,564	67.2	3,552	56.7	222	51.3	250	65.3	51	55.4
Induction of labor	9,071	27.2	7,639	29.2	1,223	19.5	101	23.3	84	21.9	18	19.6
Stimulation of labor	4,983	15.0	3,829	14.7	1,031	16.5	51	11.8	52	13.6	18	19.6
Tocolysis	622	1.9	502	1.9	96	1.5	10	2.3	12	3.1	2	2.2
Amniocentesis	622	1.9	478	1.8	133	2.1	4	0.9	5	1.3	2	2.2
Other	172	0.5	135	0.5	32	0.5	1	0.2	2	0.5	2	2.2
None	1,514	4.5	1,077	4.1	374	6.0	35	8.1	17	4.4	9	9.8

Note: For purposes of reporting obstetric procedures of the mother, multiple births (twins, triplets, etc.) are counted only as a single birth.

Obstetric procedures do not equal the total number of residents births due to multiple procedures listed on some birth certificates.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Complications of Labor and/or Delivery

Table 27, below, lists the complications of labor and/or delivery from 1996 to 2005 reported on South Dakota resident birth certificates. The four most prevalent complications per 1,000 live births in 2005 were fetal distress (74.7 per 1,000),

meconium, moderate/heavy (52.7 per 1,000), breech/malpresentation (46.6 per 1,000) and dysfunctional labor (46.5 per 1,000). Overall, complications of labor and/or delivery were present in 29.4 percent of resident births in 2005.

Table 27
South Dakota Births by Complications of Labor and/or Delivery, 1996-2005

	Total	Year of Birth									
		2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
Total Births	106,780	11,466	11,339	11,022	10,698	10,475	10,346	10,516	10,281	10,168	10,469
Fetal distress	6,417	857	834	672	711	682	664	572	464	429	532
Dysfunctional labor	5,203	533	518	563	543	509	602	534	392	499	510
Breech/Malpresentation	5,124	534	528	532	543	532	491	517	439	478	530
Meconium, moderate/heavy	4,949	604	607	567	566	550	549	429	354	331	392
Cephalopelvic disproportion	2,906	262	283	247	272	231	310	304	340	317	340
Premature rupture of membrane (>12 hours)	2,652	275	278	280	268	240	264	259	240	252	296
Precipitous labor (<3 hours)	2,146	284	255	245	253	207	175	162	208	181	176
Prolonged (>20 hours)	1,335	119	125	122	113	136	126	143	134	153	164
Febrile (>100°F. or 38°C.)	961	169	96	95	79	110	84	101	75	62	90
Other excessive bleeding	829	93	113	98	98	66	54	65	83	71	88
Abruptio placenta	766	85	100	74	72	66	77	83	65	78	66
Placenta previa	319	40	36	34	33	26	38	30	33	35	14
Cord prolapse	180	12	22	20	24	13	18	25	17	14	15
Anesthetic complications	51	7	7	6	4	4	6	4	4	6	3
Seizures during labor	37	6	5	3	1	2	3	3	6	4	4
Other	3,613	307	95	96	139	164	144	356	707	714	891
None	76,317	8,093	8,092	8,034	7,661	7,536	7,375	7,573	7,412	7,298	7,243

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Methods of Delivery

Table 28, below, shows the last 10 years of births by method of delivery. In 2005, vaginal births accounted for 74.2 percent of the South Dakota resident births, which is an increase of 0.6 percent from 72 percent in 2004. In 2005, primary C-section accounted for 14.1 percent of the South Dakota

resident births which is a decrease of 3.4 percent from 14.6 percent in 2004. C-section, (primary + repeat) accounted for 25.8 percent of the 2005 South Dakota resident births, which is a decrease of 0.8 percent from 26 percent in 2004.

Table 28
South Dakota Resident Live Births by Method of Delivery, 1996-2005

	Total	Year of Birth									
		2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
Total Births	106,780	11,466	11,339	11,022	10,698	10,475	10,346	10,516	10,281	10,168	10,469
Vaginal	79,323	8,304	8,167	7,962	7,795	7,798	7,721	7,877	7,793	7,872	8,034
Primary C-section	14,466	1,615	1,653	1,612	1,537	1,391	1,414	1,382	1,296	1,207	1,359
Repeat C-section	10,593	1,344	1,300	1,242	1,144	1,046	957	968	933	830	829
Vaginal birth after previous C-section	2,394	203	219	206	222	240	253	289	258	259	245
Vacuum	8,211	926	891	843	765	785	746	751	906	819	779
Forceps	2,834	242	226	251	271	240	238	304	325	367	370

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 29, below, displays the method of delivery by mother's race from 2003 to 2005. Vaginal birth was the highest method of delivery for all races. American Indian and black mothers had lower percents of

vacuum and forceps methods than white and Asian mothers. Asian mothers also had a higher percent of primary C-section than any other race.

Table 29
South Dakota Resident Live Births by Method of Delivery by Mother's Race, 2003-2005

	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Total Births	33,827	100.0	26,540	100.0	6,346	100.0	438	100.0	392	100.0	94	100.0
Vaginal	24,433	72.2	19,164	72.2	4,592	72.4	321	73.3	277	70.7	65	69.1
Primary C-section	4,880	14.4	3,880	14.6	840	13.2	67	15.3	75	19.1	16	17.0
Repeat C-section	3,886	11.5	3,012	11.3	785	12.4	44	10.0	33	8.4	11	11.7
Vaginal birth after previous C-section	628	1.9	484	1.8	129	2.0	6	1.4	7	1.8	2	2.1
Vacuum	2,660	7.9	2,219	8.4	367	5.8	25	5.7	40	10.2	7	7.4
Forceps	719	2.1	637	2.4	61	1.0	3	0.7	15	3.8	3	3.2

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Abnormal Conditions of the Newborn

Table 30, below, shows the last 10 years of abnormal conditions in newborns. In 2005, 4.4 percent of South Dakota resident live birth certificates reported abnormal conditions of the newborn. Racially, abnormal conditions were reported for 4.4

percent of white infants while they were reported for 4.8 percent of American Indian infants. Overall, assisted ventilation greater than 30 minutes was the most prevalent condition reported in 2005.

Table 30
South Dakota Resident Live Births by Abnormal Conditions of the Newborn 1996-2005

	Total	Year of Birth									
		2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
Total Births	106,780	11,466	11,339	11,022	10,698	10,475	10,346	10,516	10,281	10,168	10,469
Assisted ventilation >30 min.	1,210	157	141	153	156	93	108	116	108	87	91
Assisted ventilation <30 min.	840	86	80	31	30	45	57	65	128	123	195
Hyaline membrane disease/RDS	784	97	85	91	121	106	76	64	47	45	52
Birth injury	251	19	21	22	37	19	28	28	19	32	26
Meconium aspiration syndrome	222	29	14	28	31	19	18	21	18	18	26
Anemia (Hct. <39/Hgb. <13)	136	16	16	13	18	7	6	15	15	16	14
Other	2,243	209	72	65	100	117	141	242	367	463	467
None	101,927	10,959	10,974	10,701	10,296	10,133	9,970	10,039	9,667	9,487	9,701

Note: Abnormal conditions do not equal the total number of resident births due to multiple conditions listed on some birth certificates.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Congenital Anomalies

Congenital anomalies reported from 1996 to 2005 are shown in Table 31 on the next page. Since 1989, South Dakota birth certificates have contained check boxes to report some of the most severe congenital anomalies. The total number of infants with at least one anomaly in the period from 1989-2005 was 3,451 with a total of 4,058 congenital anomalies being reported. From 1996 to 2005 there were 1,849 or a rate of

17.3 per 1,000 live births with at least one congenital anomaly. In 2005, there were 264 infants with at least one congenital anomaly or a rate of 23 per 1,000 live births with at least one congenital anomaly.

The most frequently reported anomaly since 1989 was other musculoskeletal/integumental anomalies, which continues to be the most frequent for the 10 year total.

Table 31
South Dakota Resident Births with Reported Congenital Anomalies,
by Infant's Gender, 1996-2005

	Total		Infant's Gender			
			Female		Male	
	Number	Rate	Number	Rate	Number	Rate
Number of infants with at least one anomaly	1,849	17.3	771	14.8	1,078	19.7
Total Congenital Anomalies	2,175	20.4	898	17.2	1,277	23.4
Other Musculoskeletal/Integumental Anomalies	371	3.5	194	3.7	177	3.2
Other Urogenital Anomalies	238	2.2	32	0.6	206	3.8
Heart Malformations	219	2.1	106	2.0	113	2.1
Cleft Lip/Palate	174	1.6	71	1.4	103	1.9
Other Circulatory Anomalies	124	1.2	48	0.9	76	1.4
Malformed Genitalia	118	1.1	8	0.2	110	2.0
Polydactyly/Syndactyly/Adactyly	116	1.1	53	1.0	63	1.2
Club Foot	106	1.0	37	0.7	69	1.3
Down's Syndrome	105	1.0	56	1.1	49	0.9
Other Gastrointestinal Anomalies	71	0.7	32	0.6	39	0.7
Omphalocele/Gastroschisis	64	0.6	40	0.8	24	0.4
Other Chromosomal Anomalies	46	0.4	27	0.5	19	0.3
Other Central Nervous System Anomalies	43	0.4	21	0.4	22	0.4
Hydrocephalus	39	0.4	19	0.4	20	0.4
Diaphragmatic Hernia	34	0.3	15	0.3	19	0.3
Spina Bifida/Meningocele	27	0.3	16	0.3	11	0.2
Renal Agenesis	26	0.2	4	0.1	22	0.4
Tracheo-esophageal Fistula/Esophageal Atresia	20	0.2	13	0.2	7	0.1
Microcephalus	15	0.1	10	0.2	5	0.1
Anencephalus	15	0.1	9	0.2	6	0.1
Other	204	1.9	87	1.7	117	2.1

Note: Rates are per 1,000 live births from 1996-2005.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 32, on the next page, displays congenital anomalies from 2003 to 2005 by mother's race. Babies born to Hawaiian/Pacific Islander mothers have the highest percent of infants with at least one anomaly with 5.3 percent, while Asians and whites had the lowest percent of infants with at least one anomaly with 1.8 percent.

Table 33, page 32, shows congenital anomalies reported over the last 10 years. The total number of infants with at least one anomaly from 1996 to 2005 was 1,849. There was also a 47.5 percent increase in the number of infants with at least one anomaly from 2004 to 2005. From 1996 to 2005 there was a 45.1 percent increase in the number of infants with at least one anomaly.

Table 32
South Dakota Resident Births with Reported Congenital Anomalies by
Mother's Race, 2003-2005

	Total	Race of Mother				
		White	American Indian	Black	Asian	Hawaiian/Pacific Islander
Total Births	33,827	26,540	6,346	438	392	19
Number of infants with at least one anomaly	637	480	140	9	7	1
Percent of infants with at least one anomaly	1.9%	1.8%	2.2%	2.1%	1.8%	5.3%
Heart Malformations	103	76	21	4	1	1
Other Musculoskeletal/Integumental Anomalies	98	58	38	1	1	0
Other Urogenital Anomalies	67	50	14	3	0	0
Cleft Lip/Palate	58	45	11	0	2	0
Club Foot	42	37	4	1	0	0
Down's Syndrome	42	36	5	0	1	0
Other Circulatory Anomalies	41	30	10	0	1	0
Malformed Genitalia	40	31	7	1	1	0
Polydactyly/Syndactyly/Adactyly	32	25	4	2	1	0
Other Gastrointestinal Anomalies	27	21	6	0	0	0
Other Central Nervous System Anomalies	19	11	7	1	0	0
Omphalocele/Gastroschisis	18	13	5	0	0	0
Other Chromosomal Anomalies	18	14	2	2	0	0
Hydrocephalus	11	7	3	0	0	1
Spina Bifida/Meningocele	9	7	2	0	0	0
Tracheo-esophageal Fistula/Esophageal Atresia	8	7	1	0	0	0
Renal Agenesis	7	5	2	0	0	0
Diaphragmatic Hernia	6	4	1	0	0	1
Anencephalus	5	5	0	0	0	0
Rectal Astresia/Stenosis	4	4	0	0	0	0
Microcephalus	3	2	1	0	0	0
Other	99	79	19	1	0	0

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 33
South Dakota Resident Births with Reported Congenital Anomalies, 1996-2005

	Total	Year of Birth									
		2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
Total Births		11,466	11,339	11,022	10,698	10,475	10,346	10,516	10,281	10,168	10,469
Number of infants with at least one anomaly	1,849	264	179	194	189	168	151	176	170	176	182
Percent of infants with at least one anomaly	1.7%	2.3%	1.6%	1.8%	1.8%	1.6%	1.5%	1.7%	1.7%	1.7%	1.7%
Other Musculoskeletal/Integumental Anomalies	371	35	27	36	26	27	35	50	41	45	49
Other Urogenital Anomalies	238	30	12	25	20	12	21	25	27	32	34
Heart Malformations	219	36	38	29	21	17	17	12	17	16	16
Cleft Lip/Palate	174	23	13	22	14	22	17	20	15	17	11
Other Circulatory Anomalies	124	21	10	10	11	10	6	8	10	25	13
Malformed Genitalia	118	9	13	18	21	23	13	5	3	5	8
Polydactyly/Syndactyly/Adactyly	116	16	4	12	13	8	13	16	8	13	13
Club Foot	106	15	13	14	14	13	7	8	8	8	6
Down's Syndrome	105	13	17	12	12	10	6	11	10	7	7
Other Gastrointestinal Anomalies	71	10	11	6	6	6	7	10	6	4	5
Omphalocele/Gastroschisis	64	4	9	5	7	9	10	2	6	5	7
Other Chromosomal Anomalies	46	9	4	5	7	3	3	4	5	2	4
Other Central Nervous System Anomalies	43	7	4	8	4	5	3	2	4	4	2
Hydrocephalus	39	2	5	4	5	6	7	5	3	1	1
Diaphragmatic Hernia	34	1	3	2	7	4	1	4	2	5	5
Spina Bifida/Meningocele	27	3	3	3	3	3	1	1	3	3	4
Renal Agenesis	26	2	2	3	4	1	2	4	2	4	2
Tracheo-esophageal Fistula/Esophageal Atresia	20	4	1	3	3	1	1	4	1	0	2
Anencephalus	15	3	1	1	3	2	0	4	1	0	0
Microcephalus	15	1	1	1	0	1	4	2	3	1	1
Rectal Astresia/Stenosis	12	2	0	2	3	1	0	2	1	0	1
Other	192	69	25	5	5	3	2	12	29	12	30

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records